We claim

1. A polyethylene composition with multimodal molecular mass distribution, which has a density in the range of from 0.950 to 0.956 g/cm³ at 23 °C and an $MFR_{190/21.6}$ in the range of from 1.5 to 3.5 dg/min and which comprises from 35 to 45 % by weight of a low-molecular-mass ethylene homopolymer A, from 34 to 44 % by weight of a high-molecular-mass copolymer B made from ethylene and from another 1-olefin having from 4 to 8 carbon atoms, and from 18 to 26 % by weight of an ultrahigh-molecular-mass ethylene copolymer C, wherein all of the percentage data are based on the total weight of the molding composition.

2. A polyethylene molding composition as claimed in claim 1, wherein the high-molecular-mass copolymer B contains small proportions of less than 0.1 % by weight of co-monomer having from 4 to 8 carbon atoms, based on the weight of copolymer B, and wherein the ultrahigh-molecular-mass ethylene copolymer C contains an amount in the range from 0.1 to 0.6 % by weight of co-monomers, based on the weight of copolymer C.

3. A polyethylene composition as claimed in claim 1 or 2, which, as a co-monomer, contains 1-butene, 1-pentene, 1-hexene, 1-octene, 4-methyl-1-pentene, or mixtures of these.

4. A polyethylene composition as claimed in one or more of claims 1 to 3, which has a viscosity number VN_{tot} of from 500 to 600 cm³/g measured to ISO/R 1191 in decalin at 135 °C.

5. A polyethylene composition as claimed in one or more of claims 1 to 4, which has a swell ratio in the range from 180 to 220 %, and a notched impact strength (ISO) in the range from 60 to 90 kJ/m², and a stress-crack resistance (FNCT) in the range from 15 to 25 h.

6. A process for producing a polyethylene composition as claimed in one or more of claims 1 to 5, in which the monomers are polymerized in slurry in a temperature range of from 60 to 90 °C at a pressure in the range of from 0.15 to 1.0 MPa, and in the presence of a high-mileage Ziegler catalyst composed of a transition metal compound and of an organoaluminum compound, which comprises conducting polymerization in three stages, wherein the molecular mass of each polyethylene prepared in each stage is regulated with the aid of hydrogen.

7. A process as claimed in claim 6, wherein the hydrogen concentration in the first polymerization stage is adjusted so that the viscosity number VN_1 of the low-molecular-mass polyethylene A is in the range of from 160 to 220 cm³/g.

8. A process as claimed in claim 6 or 7, wherein the hydrogen concentration in the second polymerization stage is adjusted so that the viscosity number VN_2 of the mixture of polymer A and polymer B is in the range of from 230 to 320 cm³/g.

9. A process as claimed in any of claims 6 to 8, wherein the hydrogen concentration in the third polymerization stage is adjusted so that the viscosity number VN_3 of the mixture of polymer A, polymer B, and polymer C is in the range of from 500 to 600 cm³/g.

10. The use of a polyethylene composition as claimed in one or more of claims 1 to 5 for producing L-ring drums with a capacity in the range of

from 50 to 250 dm^3 (l), where the polyethylene composition is first plasticized in an extruder in a temperature range of from 200 to 250 °C and is then extruded through a die into a mold, where it is blown up and then cooled and solidified.

* * * * *